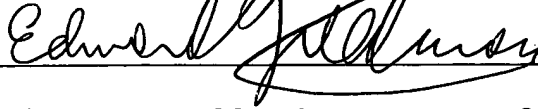


A prompt notification of allowability is respectfully requested.

Respectfully submitted,
GUNTER - 3PCT



Allison C. Collard, Reg. No. 22,532

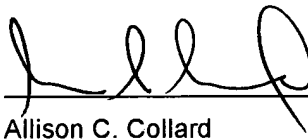
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Enclosure:

1. New Abstract of Disclosure
2. Marked-up Version of Amended Claims
3. Marked-up Version of Amended Abstract
4. Marked-up Version of Amended Specification
5. Copy of Petition for three month Extension Time
Large Entity

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: ASSISTANT COMMISSIONER OF PATENTS, Washington, D.C. 20231, on February 7, 2003


Allison C. Collard

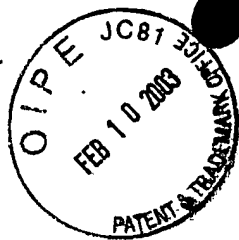
MARKED-UP VERSION OF AMENDED CLAIMS

ABSTRACT AND SPECIFICATION

12. (Amended) Process for the production of a multilayer coextrudate with a plastic layer that has release properties with respect to adhesives, comprising [where the]

locating materials producing the release properties [are located] within the plastic layer, wherein a first web (2, 22) is provided in production of the coextrudate on one side of which a layer of adhesive (3, 23) is located, after which the plastic layer (4, 24) with the release properties follows, which is in turn bonded to a second web (5,25); and

wherein the layers of the coextrudate are coextruded
simultaneously.



Fo7263PCT

Multilayer coextrudate

4P Folie Forchheim GmbH

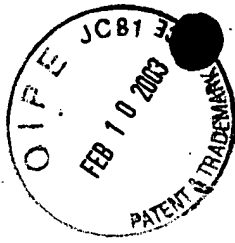
Summary

Process for the production of a multilayer coextrudate
and the coextrudate produced by this process

ABSTRACT OF THE DISCLOSURE

Process for the production of a multilayer coextrudate with a plastic layer that has release properties with respect to adhesives, where the materials producing the release properties are located within the plastic layer, where a first web (2, 22) is provided in production of the coextrudate on one side of which a layer of adhesive (3, 23) is located, after which the plastic layer (4, 24) with the release properties follows, which is in turn bonded to a second web (5, 25). A multilayer coextrudate is characterised by the fact that at least two plastic films (2, 5; 22, 25) are provided, between which a layer of adhesive (3, 23) and a further layer (4, 24) that has release properties with respect to the adhesive are located.

Fig. 1



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Multilayer coextrudate

Description

Process for the production of a multilayer coextrudate

and the coextrudate produced by this process

~~CROSS REFERENCE TO RELATED APPLICATIONS~~
~~BACKGROUND OF THE INVENTION~~

1 ~~1. Field of the Invention~~
The invention relates to a process for the production of a multilayer coextrudate with a plastic layer that has release properties with respect to adhesives, where the materials producing the release properties are located within the plastic layer.

SUMMARY OF THE INVENTION

4 The purpose of the invention is to indicate a process of the kind outlined above with which a composite material consisting of a web, an adhesive, a release layer and a further web for the release layer can be produced in an efficient way.

In the solution to this problem proposed by the invention, a first web is provided in production of the coextrudate on one side of which a layer of adhesive is located, after which the plastic layer with the release properties follows, which is in turn bonded to a second web.

At least the basic structure of the composite material is produced in a single operation by this coextrusion process.

All the layers that can be oriented can help to increase the strength properties in this case.

In accordance with an advantageous development of the invention, a multilayer coextrudate has at least two plastic films, between which a layer of adhesive and a further layer that has release properties with respect to the adhesive are located.

In a further advantageous development of the invention, further layers are provided that are located on either or both sides of the plastic films.

It has proved to be very advantageous if in accordance with a further development of the invention at least part of the coextrudate structure is oriented.

Considerable increases in strength are achieved by orienting the substrate web or the finished coextrudate.

BRIEF DESCRIPTION OF THE DRAWINGS

Two embodiments of the invention are illustrated in the drawings:

Fig.1 is a diagrammatic view of the structure of a composite material that consists of four layers and

Fig.2 shows a further composite material consisting of five layers, again in a diagrammatic view.

DETAILED DESCRIPTION OF PREFERRED EMBODIMENTS

1 in Fig. 1 is a composite material that consists of four layers and has been produced by the coextrusion process. A layer of adhesive 3, next to which a further layer 4 that has release properties with respect to the adhesive is located, is provided on one side of a first web 2. This release layer 4 is in turn bonded to a second web 5. If both of the webs 2 and 5 are made from a coextrudable plastic, all four layers can be produced simultaneously, not only by the blown film process but also by the cast film process. It

Use of SIS, SBS, and SEBS [and SEP] block copolymers with melt indices of between 8 and 65 g / 10 min at 200° C and 5 kg. The styrene content of the polymers varies between 10 and 35%. The properties of the adhesive layer are controlled by the addition of resins and plasticisers, e.g. by means of aliphatic hydrocarbon resins, polyterpene resins, hydrolysed hydrocarbon resins, aromatic hydrocarbon resins, paraffin waxes, microcrystalline waxes, polyisobutylene and process oils.

Liquid components are processed into an extrudable form by carrying out a compounding operation first.

The extrusion temperatures vary between 100 and 240° C, avoiding excessively high shear forces at the same time.

Example 2:

Another way to produce the adhesive layer involves the inclusion of UV acrylates or UV-curing PSAs between the coextruded substrate and release layers by using melt transport technology.

The radiation-cured basic materials are, for example, acrylate copolymers with an integrated photoinitiator. UV cross-linking is carried out by the polymer substrate layer for the adhesive.

The acrylate copolymers can be modified by resins and plasticisers, while the tack of the adhesive layer can be regulated via the radiation dose.

Typical radiation wavelengths for cross-linking purposes are in the range between 250 and 260 nm (UVC).

Typical processing temperatures for the acrylate copolymers are between 110 and 150°C.

If a substrate web is used that is coated by the coextrusion process, it is possible to orient not only the substrate web alone but also the finished coextrudate in order to increase the strength properties.

7 If the entire structure is produced as a coextrudate, this coextrudate can also be oriented subsequently to increase the strength properties.

The following list defines the above-mentioned abbreviations:
etc.